

Remarks

This Preliminary Amendment is responsive to the Office Action dated January 20, 2004.

The present invention is directed to the system and method for regulating the application of chemicals to a field or planting seeds, wherein a GPS system is used to determine ground speed, convert the ground speed signal to a series of pulses, increasing the voltage of the pulses to greater than the four volts, then outputting the increased voltage signals to the agricultural dispenser. Applicant acknowledges that GPS systems for determining ground speed are well known in the art, as noted by the Examiner. What is not known in the prior art, however, is the conversion of a GPS signal to a series of pulses, to increase the voltage level of the pulses, and to supply the converted increased voltage pulses to an agricultural dispenser.

The Examiner relies on U.S. Patent 6,079,340, which is directed to an agricultural dispenser and does teach a GPS system. The reference specifically teaches, however, the use of a conventional ground speed sensor 210 such as a magnetic pickup device or a radar device for determining the speed of the vehicle, and outputting signals from that ground speed sensor to the agricultural dispenser. A GPS system is used, but the GPS system is used not to determine ground speed, but rather to determine the vehicle location in the field, as noted at column 7 commencing at line 54, so that data from the GPS can be compared with maps to fine tune the output to the dispenser unit based upon the determined location, as noted at column 8, commencing at line 38.

The Examiner contends that just because this reference does not teach using a GPS system to generate a ground speed signal, this would not prevent one of ordinary skill in the art from modifying the invention to use a GPS ground speed signal. Applicant respectfully submits that a reading of the entirety of the cited reference rebuts the case of obviousness, since the cited reference teaches in a material respect away from the claimed invention. *In re Haruna*, 249 F.3d 1327, 1335, 58 USPQ2d 1517 (Fed. Cir. 2001). In its disclosure, Applicant conceded that GPS systems were known in the art, but the disclosure of Applicant's specification further teaches that the signals from the GPS are inoperable to affect the agricultural dispensing unit. The cited reference teaches conventional technology for generating a series of pulses which are practical for the dispensing unit, and further recognizes the benefits of a GPS system -- not for determining the ground speed, but rather for determining the position of the vehicle in the field and providing this information to the system's computer to set a desired material application rate. It is thus inherent that the cited reference does not recognize that a converter and driver as recited in the pending claims could be used to receive GPS signals and output a series of pulses useful to the agricultural dispenser. Upon reading the entire reference, one of ordinary skill in the art would be led to believe that a GPS system is useful for determining location and affecting the selected material application rate, but would not understand that a GPS signal would be practical for outputting a series of pulses from a converter to a driver which was useful to the agricultural dispenser as an indication of ground speed. The cited reference teaches away from the invention since it leads one to a different solution for the use of a GPS system, but to the same prior art solution for applying ground speed signals to the

agricultural dispensers. *Monarch Knitting Machinery Corp. v. Sulzer Morat GmbH*, 139 F.3d 877, 885, 45 USPQ2d 1977, 1984 (Fed Cir. 1998).

In view of the above, early allowance of the Application is requested.

Respectfully submitted,



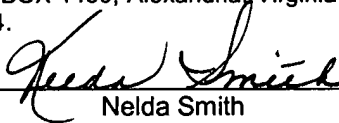
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CERTIFICATE OF MAILING

I hereby certify that this correspondence and all referenced enclosures are being deposited by me with the United States Postal Service as Regular Mail in an envelope addressed to the Assistant Commissioner of Patents, Mail Box: Amendment with Fee, P.O. BOX 1450, Alexandria, Virginia 22313-1450 on March 8, 2004.

By: _____


Nelda Smith